

What is claimed is:

1 1. A flat lamp, comprising:
2 an upper glass plate;
3 a bottom glass plate;
4 at least one sidewall to form a closed space with
5 the upper glass plate and the bottom glass
6 plate;
7 at least two electrodes parallel extending into the
8 closed space;
9 at least two rear sleeves positioned in the closed
10 space to support the electrodes; and
11 at least two front glass sleeves secured on the
12 bottom glass between sidewalls, wherein the
13 electrodes extend from the closed space outward
14 through the front glass sleeves.

1 2. The flat lamp as claimed in claim 1, wherein
2 the end surface of the electrode to the rear glass sleeve
3 are spaced apart.

1 3. The flat lamp as claimed in claim 2, wherein
2 the elongation of the electrodes due to heating is less
3 than the sum of the linear heating expansion of the rear
4 glass sleeve and the spacing.

1 4. The flat lamp as claimed in claim 1, wherein
2 the rear glass sleeve is secured on the bottom glass
3 between the sidewalls, and the electrode is held therein.

1 5. The flat lamp as claimed in claim 1, wherein
2 the front glass sleeve is secured on the bottom glass
3 plate and the electrodes are held therein.

1 6. The flat lamp as claimed in claim 1, wherein
2 the rear glass sleeve is melted to seal the closed space.

1 7. The flat lamp as claimed in claim 1, wherein
2 the front glass sleeve is melted to secure the electrode
3 and seal the closed space.

1 8. The flat lamp as claimed in claim 1, wherein
2 the front glass sleeve is bonded to the bottom glass
3 between the sidewalls and the closed space is sealed by
4 means of glass gel.

1 9. The flat lamp as claimed in claim 1, wherein the
2 electrodes are inserted and secured through the front
3 glass sleeves by melting the front glass sleeves.

1 10. The flat lamp as claimed in claim 1, wherein the
2 electrodes are inserted and secured through the front
3 glass sleeves by glass gel.